

HUMAN GROWTH AND DEVELOPMENT

Prenatal Development and Child Birth

Generalizations

Teacher Note

1. Prospective parents who understand fetal development and the birth process can provide greater support to each other.
2. Early physical development is rapid, with greater changes in the first few years of life than at any subsequent stage.
3. Understanding developmental growth stages assists parents in providing an environment for maximizing a child's development.
4. Bonding is facilitated by allowing new parents to have immediate access to their newborn child.
5. Touching and holding of the newborn encourage family closeness and benefit the newborn.
6. For the infant, bonding is the first step in socialization.
7. Fathers need opportunities and encouragement to establish identity as a nurturing caretaker of the infant.

HUMAN GROWTH AND DEVELOPMENT

(Pre-class Assessment)

1. Do you hope to have children some day?
a. Yes_ b. No_____ c. Undecided__
2. Where would you want your baby to be born?
a. Hospital.
b. Alternative birthing center.
c. Home .
d. With the assistance of a nurse/midwife rather than a doctor.
3. Which method of childbirth do you find appropriate?
a. As natural as possible.
b. Cesarean.
c. Medicated but conscious during labor and delivery.
d. Medicated and unconscious during labor and delivery.
e. Do not know.
4. Who should be present in addition to medical personnel at the birth of a child?
a. Child's father.
b. Child's grandparents.
c. Child's siblings.
d. Parents' close friends.
e. Other relatives.
f. No one.
5. What role can the father have in childbirth?
a. Labor coach.
b. Help deliver baby.
c. Present, but not participating.
d. Not present during labor or delivery.
6. What attitude do you have about the child birthing experience?
a. A beautiful, natural experience.
b. A simple surgical operation.
c. Full of shots, medication, unconsciousness.
d. Hard work but worth it.
e. Vague and unclear about the process.
f. Other

HUMAN GROWTH AND DEVELOPMENT

Pre-class Assessment (Continued)

7. What aspects of childbirth make you uneasy?
 - a. Medication or drugs going into the baby's system.
 - b. The sight of blood.
 - c. Possible pain.
 - d. The thought of a cesarean.
 - e. The unknown.
 - f. How I might react.
 - g. Other.
8. Pain during childbirth would probably be lessened by:
 - a. Using inner strength.
 - b. Requesting a cesarean.
 - c. Requesting pills, a shot, or gas to relieve the pain.
 - d. Giving in to panic.
 - e. Relying on the labor coach.
 - f. Other.
9. If my partner experienced pain during childbirth, I would:
 - a. Suggest that she be given a medication (with her approval)
 - b. Let her make up her own mind about medication
 - c. Ask the doctor to give her medication (without her knowing)
 - d. Encourage her not to use drugs,
 - e. Other.
10. What myths have you heard about childbirth?

HUMAN GROWTH AND DEVELOPMENT

Pregnancy

Teacher Notes

1. Have the students make a list of the rights they feel expectant parents have about the birthing process.
2. Compare the students' list of rights with those listed as follows:
 - a. The right to be informed about procedures and treatment.
 - b. The right to childbirth education.
 - c. The right to a support person (husband, mother, sister, friend) present during the birth.
 - d. The right to choose the type of delivery.
 - e. The right to help decide what medications (including anesthetic) will be used.
 - f. The right to choose the birth attendant.
 - g. The right to choose the site of birth (hospital or home).
 - h. The right to childbirth with dignity.
3. Develop a list of rights on which the class agrees.
4. Make students aware that most rights have responsibilities attached to them. Have the students list a responsibility required for each right.
5. Compare the students' list of responsibilities with those given as follows:
 - a. Responsibility to ask questions regarding hospital policies and regulations.
 - b. Responsibility to learn about prenatal care and childbirth.
 - c. Responsibility to arrange for a support person to share plans and to accompany the mother at birth.
 - d. Responsibility to obtain information in advance about the kinds of delivery methods available and the regulations regarding these methods.
 - e. Responsibility to become informed about the advantages and disadvantages of medications available for use.
 - f. Responsibility to select a care attendant who shares a similar philosophy.
 - g. Responsibility to investigate the alternative sites available and to accept the limitations of the one you select.
 - h. Responsibility to treat care givers with the respect and consideration you expect for yourself.

HUMAN GROWTH AND DEVELOPMENT

Pregnancy

Teacher Notes

Read the two birth case histories on pages 7 and 8.

Follow up the reading with a class discussion and/or role-play the case histories. Using Couple Two as an example, explain how Couple One could have improved the birth experience. Consider both prenatal planning and personal goals for this event.

Important Points to Consider About Couple One

- (1) The parents were uninformed about childbirth procedures and hospital policies and options.
- (2) The couple was separated during labor and birth.
- (3) The IV and fetal monitor machine were frightening, rather than reassuring, to the mother.
- (4) The mother was unaware that she had a choice of anesthesia or of no anesthesia.
- (5) The mother felt disappointed that she was uninformed about birth options that might have been available to her.
- (6) The father may have been unable or unwilling to be present at birth.
- (7) The mother will face a period of recuperation following the anesthesia; the baby will recover from the effects of anesthesia; the father will not have participated. All three factors may interfere with the onset of the family attachment to the baby.

Teacher Note: Case Histories (Continued)

Important Points to Consider About Couple Two

- (1) The parents were well informed about the birthing process and the options they had.
- (2) The parents made choices concerning where the birth would take place, which anesthetic would be used, and whether the father would be present.
- (3) The mother felt comfortable asking her doctor questions, and the doctor was willing to spend time talking to her.
- (4) The couple never separated.
- (5) There was no initial separation of the infant and parents, a policy which promotes attachment among the three.
- (6) Both parents and the staff felt good about the birth. The couple experienced the satisfaction of making decisions concerning the birth of their child.

HUMAN GROWTH AND DEVELOPMENT

Pregnancy

Handout

The case histories in this section show two couples' different approaches to becoming parents.

Couple One

When our first child was born, neither my husband nor I had done any reading or taken any classes to prepare us for the actual birth. I think Ted and I felt that having a baby was very natural—that no preparation was necessary. We thought that the baby would be born when it was ready and that our doctor would make all the right decisions for us. The doctor would know which hospital would be best, what kind of anesthetic I would need, and what procedures and treatments would be necessary. I really did not know what to expect. I did not realize that a pregnant woman could be a part of the decision making. I did not know that different hospitals have different birthing choices and procedures. Some hospitals today have a delivery room which is decorated like a bedroom. This approach allows the mother and baby to experience a home-like setting and, at the same time, to have the safety and emergency care that only a hospital and staff can provide.

I wish now I had known more about childbirth and had asked my doctor to explain what procedures, anesthetic, and medications I could have expected. I should have borrowed some books or magazines from the doctor or the local library so that I could have been better prepared. I did not know that my husband could be in the labor room with me. Instead, the doctor suggested that he stay in the waiting room. I thought it was a hospital rule and did not ask that he stay with me.

When the hospital staff set up an intravenous device (IV) and a fetal monitor, I thought there was an emergency and that my baby was in danger. Had I been better prepared and known more, I would not have been frightened for my baby. I also could have expressed my own preferences when there was a choice. If I have another child, I am going to know more about the process to help me make better decisions.

Case Histories (Continued)

Couple Two

When I found out that I was pregnant, I read everything I could find on prenatal care and the birthing process. My doctor had a number of booklets at the office. Michael and I read those and then went to the library to get more information. I read about Lamaze and Bradley natural childbirth methods. I decided I would go to a meeting to find out more about natural childbirth.

We decided that Michael should be present at the baby's birth, so we asked the doctor if that was permitted. The doctor told us one hospital discouraged having fathers present, but the hospital which was farther from our home supported a father's being present at his child's birth. We chose to go to the second hospital, which was thirty minutes farther away. My doctor spent a lot of time telling me about different kinds of anesthetics and their effect on me and our unborn child.

The night we drove to the hospital I felt very excited and at the same time calm because I had a good understanding of what to expect. The hospital staff approved of Michael's presence, and having him with me was a comfort to both of us. He and I were able to hold our baby shortly after its birth. We felt as though we were part of a miracle.

HUMAN GROWTH AND DEVELOPMENT

Generalizations

Handout

1. Congratulations! So, you're going to have a baby. Practice up on your lullabies. And here's to a happy, *healthy* pregnancy.
2. Foods mothers-to-be should eat. Eat lots of fresh fruits, fish, vegetables and dairy products. Drink lots of juices, milk and water.
3. Smoking is unhealthy - especially to an unborn baby. Try to avoid second hand smoke, too! Remember, drinks with alcohol or caffeine also harm your baby.
4. No drugs or medications (even aspirin). Try to stay away from people who are sick.
5. Be sure to keep all your clinic or doctor's appointments. And feel free to ask your doctor *anything* - no matter how silly you think your question might be.
6. Have you figured out how you're going to *pay* for this baby? Start getting insurance paperwork in order. If you know you'll need financial help, contact your local social services office as soon as possible.
7. Share your thoughts about having a baby with friends and relatives. Sharing stories helps relieve tension and allows you to see that everyone goes through this when expecting a baby. Besides, you'll get some great hints and ideas.
8. Make a list of questions for your doctor. Doctor visits are often short and you may forget questions if they are not written.
9. The third trimester is the time to: Enroll in a class to learn more about your baby's birth and care. Your local health clinic can help you with classes on prepared ("natural") childbirth, breast-feeding, etc.

HUMAN GROWTH AND DEVELOPMENT

Generalizations Handout (continued)

10. Practice the route to the hospital. Keep important phone numbers handy (doctor, dad's work number, good neighbor, rescue squad). Ask your doctor if dad can watch the birth of his baby.
11. Start getting baby's things together. Most hospitals supply diapers and an undershirt, but you'll want to bring a nightgown, hat, booties, blanket. Check on a car seat to bring baby home. Hospitals will not release a baby to a car without a safety seat. Some even rent them for the ride home!
12. At home you'll need diapers, cotton shifts, nightgowns, sweater, hat, bootie socks, bassinet or basket, blankets, sheets, thermometer, bath basin or large dishpan, towels and soap. If you're going to bottle-feed, have the equipment ready.
13. Start wearing a watch with a second-hand. When labor pains begin, time them and follow your doctor's instructions for going to the hospital.
14. Have you picked out a name yet? Baby's due any minute now. Good luck!!

HUMAN GROWTH AND DEVELOPMENT

Prenatal Infant Growth

Teacher Notes:

Directions

1. Use one or more of the suggested resources listed below (or use a film or print resource that visually depicts prenatal development throughout pregnancy) to stimulate the students' discussion about prenatal growth.
 - *Beginning of Life*. This film was produced by Benchmark Films in 1968.
 - *Birth Atlas* (Sixth edition). New York: Maternity Center Association, 1978. This publication, which shows prenatal development and the labor process, is available from the Maternity Center Association, 48 E. 92nd St., New York, NY 10028.
 - *The Body Human: The Miracle Months*. This television videotape production is available in film libraries of some counties and districts.
 - *The First Days of Human Life*. This film depicts prenatal development. It is available from Birthright of Marin, 8031/2 D Street, San Rafael, CA 94901. A small rental fee is required.
 - *Life Before Birth*. This filmstrip is available as a kit or pictorial reprint (Educational Reprint #27). It is available from Time/Life Education, P.O. Box 834, Radio City Post Office, New York, NY 10010.
 - Nilsson, Lennart. *A Child Is Born* (Revised edition). New York: Delacorte Press, 1977.
2. Many of the participants, while fathers, may not have attended to the mother of the child prior, during or after the birth. It would be immensely useful to have a panel of about three mothers to be available for a question and answer panel. Panel participants should be aware that the questions they may be asked to answer could be personal.

It would be helpful to have a mother representing a specific culture and an older generation. (see attached for more instructions)

HUMAN GROWTH AND DEVELOPMENT

Pregnancy

Handout: For Expectant Mothers

Note: Dad may want to mail this home.

Nine Basic Principles for Nine Months of Healthy Eating

Every Bite Counts. You've got only nine months of meals and snacks with which to give your baby the best possible start in life. Make every one of them count. Before you close your mouth on a forkful of food, consider, "Is this the best bite I can give my baby?" If it will benefit your baby, chew away. If it'll only benefit your sweet tooth or appease your appetite, put your fork down.

All Calories Are Not Created Equal. For example, the 150 calories in a doughnut are not equal to the 150 calories in a whole-grain, juice-sweetened bran muffin. Nor are the 100 calories in ten potato chips equal to the 100 in a baked potato served in its skin.

Starve Yourself, Starve Your Baby. Just as you wouldn't consider starving your baby after it's born, you shouldn't consider starving it in-utero. The fetus can't thrive living off your flesh, no matter how ample. It needs regular nourishment at regular intervals. Never, never skip a meal. Even if you're not hungry, the baby is. If persistent heartburn or a constant bloated feeling is spoiling your appetite, spread your daily meals instead of three large ones.

Efficiency Is Effective. Fill your daily nutritional requirements in the most efficient way possible within your caloric needs. Eating 6 tablespoons of peanut butter (if you can get it down) at 600 calories, or about 25% of your daily allotment, is a considerably less efficient way of getting 25 grams of protein than eating 3 1/2 ounces of water-packed tuna at 125 calories. And eating a cup and a half of ice cream (about 450 calories) is a far less efficient way of getting 300 milligrams of calcium than drinking a glass of skim milk (90 calories) or eating a cup of nonfat yogurt (100 calories). Fat, because it has more than twice as many calories per gram as either proteins or carbohydrates, is a particularly inefficient source of calories. Choose lean meats over fatty ones, low-fat milk and dairy products over full-fat, broiled foods over fried; spread butter lightly; saut? in a teaspoon of fat, not a quarter of a cup.

Healthful Eating Should Be a Family Affair. If there are subversive elements at home, urging you to bake chocolate chip cookies or to add potato chips to your shopping list, it's a sure bet that the you won't stand a chance. So make other family members your allies by putting the whole household on the diet with you. Bake naturally sweet Fruity Oatmeal Cookies instead of chocolate chip; bring home

whole-wheat pretzels or toasted sunflower seeds instead of potato chips.

HEALTH ISSUES

Pregnancy

Calories. The old adage that a pregnant woman is eating for two is true. But it's important to remember that one of the two is a tiny developing fetus whose caloric needs are significantly lower than yours—a mere 300 calories a day, more or less.

Protein: four servings daily. Protein is composed of substances called amino acids, which are the building blocks of human cells; they are particularly important in building the cells of a new baby.

Vitamin C Foods: two servings daily. You and baby both need vitamin C for tissue repair, wound healing, and various other metabolic (nutrient-utilizing) processes. Your baby also needs it for proper growth and for the development of strong bones and teeth. Vitamin C is a nutrient the body can't store, so a fresh supply is needed every day. Vitamin C-rich foods are best eaten fresh and uncooked, as exposure to light, heat, and air destroys the vitamin over time.

Calcium Foods: four servings daily. Calcium is also vital for muscle, heart, and nerve development, blood clotting, and enzyme activity. But it's not only your baby who stands to lose when you don't get enough calcium. If incoming supplies are inadequate, your baby making factory will draw upon the calcium in your own bones to help meet its quota, setting you up for osteoporosis later in life. Still another reason to drink your milk (or take your calcium in other forms) is the recent research indicating that a high calcium intake may help prevent pregnancy-induced hypertension (pre-eclampsia).

Green Leafy and Yellow Vegetables and Yellow Fruits: three servings daily, or more. These bunny-set favorites supply the vitamin A, in the form of beta-carotene, that is vital for cell growth (your baby's cells are multiplying at a fantastic rate), healthy skin, bones, and eyes, and may even reduce the risk of some types of cancer.

Other Fruits and Vegetables: two servings daily, or more. In addition to produce rich in beta-carotene-vitamin A and vitamin C, you need at least two other types of fruit or vegetable daily—for extra fiber, vitamins and minerals.

Whole Grains and Legumes: five servings daily, or more. Whole grains (whole wheat, oats, rye, barley, corn, rice, millet, triticale, soy, and so on) and legumes (dried peas and beans) are packed with nutrients.

THE BEST-ODDS DAILY DOZEN (Continued)

Iron-Rich Foods: some daily. Since large amounts of iron are essential for the developing blood supply of the fetus and for your own expanding blood supply, you'll need more during these nine months than any other time in your life. Get as much of your iron as you can from your diet.

High-Fat Foods: four full or eight half servings, or an equivalent combination daily. According to generally accepted nutritional guidelines, no more than 30% of an adult's calories should come from fat. The same guidelines apply to pregnant adults.

Salty Foods: in moderation. At one time, the medical establishment prescribed limiting salt (sodium chloride) during pregnancy because it contributed to water retention and bloating. Now it is believed that some increase in body fluids in pregnancy is necessary and normal and that a moderate amount of sodium is needed to maintain adequate fluid levels.

Fluids: at least eight 8-ounce glasses daily. You're not only eating for two, you're drinking for two. If you've always been one of those people who goes through the day with barely a sip of anything, now's the time to change that habit. As body fluids increase during pregnancy, so does your need for fluid intake. Your fetus, too, needs fluids. Most of the body, like yours, is composed of water. Extra fluids also help keep your skin soft, lessen the likelihood of constipation, rid your body of toxins and waste products, and reduce excessive swelling and the risk of urinary tract infections. Be sure to get at least 8 cups (2 quarts) a day-more if you're retaining a lot of fluid.

Nutritional Supplements: a pregnancy formula taken daily. Vitamin supplements have always generated controversy in the scientific community. The controversy surrounding prenatal vitamin supplements has now intensified with a statement from the National Academy of Sciences, which concluded that there is currently insufficient evidence to encourage routine use of supplements.

HUMAN GROWTH AND DEVELOPMENT

Parent Interviews

Teacher Notes:

1. Solicit volunteer women who are pregnant or are already mothers to participate in a panel question and answer session during one of your class periods. This will provide an opportunity for participants to ask questions specific to pregnancy and childbirth. Advise prospective panel members that questions may be sensitive in nature.
2. After question and answer session lead a class discussion on the participants individual impressions. Compile a list of the following:
 - a. What were the most common findings?
 - b. What were some of the unusual findings?
 - c. What myths were disproved? Confirmed?
3. Discuss any generational issues identified.
 - a. What myths were there about pregnancy or the birth process?
 - b. Where was the baby born? (e.g., hospital, home, and so forth)
 - c. What were the attitudes toward being pregnant and having a baby?
 - d. What were the father's and grandparents' roles during the pregnancy and birth?
4. Compare the similarities and differences of childbirth that the grandparents and parents experienced.

HUMAN GROWTH AND DEVELOPMENT

Parent Interviews

Student Directions (Handout)

(Students should use discretion when they are interviewing people.)

1. Interview at least five mothers (one may be your own mother), using the following questions:
 - a. What made you think that you were pregnant before you had a pregnancy test? What physical changes did you first notice?
 - b. If you have had more than one child, were there any differences between the early symptoms of each pregnancy?
 - c. What emotional or physical changes did you experience throughout pregnancy?
 - d. Was pregnancy the same as or different from your expectations? How?
 - e. What myths had you heard about being pregnant? From whom?
 - f. What do you wish you had known about being pregnant before you became pregnant?
2. What can you learn about a baby before its birth? Use the following questions:
 - a. Do you feel you "know" your baby in any way right now? How?
 - b. Did you feel that you knew your baby in any special way while you were pregnant? How?
 - c. How active or quiet was your baby?
 - d. Do you notice any special times when your baby was awake or asleep? Describe them.
 - e. What woke up your baby? What quiets your baby? (Examples: singing, eating, exercise, baths, rocking)
 - f. Do you talk to your baby? Do you think your baby hears you?

HUMAN GROWTH AND DEVELOPMENT

Prenatal Infant Communication

Teacher Notes

Discuss the following in class:

- a. What are the needs of the unborn child before birth? Ask students what the baby needs from the mother to feel content. (Examples are food, touch, stimulation, movement, warmth, and security.)
- b. How does a mother provide these things for the baby during pregnancy? (Example: The baby is used to getting food from the mother's body.)
- c. How does a family continue to provide for the infant's needs in the first month after birth? (Example: Families must adjust the temperature of the home or dress the baby so that he or she is warm and comfortable outside the womb.)

HUMAN GROWTH AND DEVELOPMENT

THINGS TO THINK ABOUT WHEN THE NEW BABY IS ADDED TO THE FAMILY

Children are very self-centered. The real questions are: "How will this baby affect me!" "How will this baby affect my relationship with my mom/dad?" "How will I have to change when the new baby comes?" (Change is never easy and always frightening - especially for kids.)

A child's birth order is very important to the child, and many psychologists feel it is a major factor in the development of personalities. The birth of a baby changes the birth order of the children in the family. (The baby becomes the big sister or brother, a child may no longer be the "only" girl or boy, or a child will be the middle of three - the change in family position takes adjustment.)

Babies can't and don't play. It is a mistake to think a child is "someone to play with" as they will expect the baby to play as soon as you come in the door. (Waiting 18 months is too long!)

It is very common for children to express negative feelings toward the baby. If you tell a child they cannot or should not feel something (angry, left out, scared, lonely), it does not change the feeling. You just add guilt to that feeling. Encourage your child to talk about their feelings, respond with statements like "sometimes we all feel_____, in this family we talk about our feelings even if it might hurt someone or sound negative. It is okay if you_____(whatever is okay with you, the parent - cry, hit a pillow, throw nerf balls, slam doors, etc.).

Try to set a little time aside for your other children, even if it's 10 minutes. Make everyone (even the baby) wait while you and your child visit, read, play a game or something. Older children enjoy hearing dad tell the baby, "Yes, I hear you but it's not your turn it's_____'s turn."

Let the other children "help" by bringing diapers, etc.

"Change" is difficult and it takes time to adjust. It's not easy for children when the new baby comes, but they try to cover that up with laughter and smiles. Just because kids don't say something doesn't mean they aren't thinking!

Sleep when possible! A well-rested dad can think better.

The new baby and her/his effect on the family could be a lesson of its own. Books to Read: Nobody Asked Me If I Wanted A Baby Sitter - Martha Alexander; Peter's Chair - Ezra Jack Keats; Me and My Baby Sitter Mercer Mayer.

HUMAN GROWTH AND DEVELOPMENT

PREGNANCY BIBLIOGRAPHY

How Babies Are Made - Audrey Andrew

How Your Body Works - Hayes

Where Did I Come From - Peter Mayle

Miracle of Life - Nova

Journey to Birth - March of Dimes

Childbirth With Love - Neils H. Lauersen, MD.

Pregnancy. Birth and Family Planning - Alan F. Guttmacher, MD.

What to Expect When You're Expecting - Arlene Eisenberg

Parents Book of Pregnancy and Birth - Leah Yarrow

The Maternity Source Book - Wendy and Matthew Lesko

A Child Is Born - Lennart Nilsson

Pregnancy and Work - Jean Grasso Fitzpatrick

Having a Baby After 30 - Elisabeth Bing and Libby Colman

The Birthing Book - Catherine Keith, RN and Debra Sperling, RN

Birth Reborn - Michael Odent

The Rights of the Pregnant Parent - Valmai Howe Elkins

*Your local March of Dimes and Johnson & Johnson Baby Products (Skillman, New Jersey 08558) offer many free charts, pamphlets and videos. Write or call and request their material. Childbirth Graphics Ltd. offers "Childbearing, the Classic Series."